

## Product datasheet for **MR223939**

### Grhl1 (NM\_145890) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grhl1 (NM_145890) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grhl1
Synonyms:	LBP-32; MGR; Tcfcp2l2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR223939 representing NM\_145890  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTTCTCCTTGATGATGAAGTGTGTGACCTAAACAGCATACCAATGTGACGGAGCAGCCCTCATT  
 CTGCTGGAGAAAACAGGGTGCAAGTGTGAAAAACGTGCCCTTCAACATCGTCCTCCCCATAGCAACCA  
 GCTGGGCATTGATAAGAGAGGCCATCTGACAGCTCCCGATACAACAGTCACTGTCTCCATAGCAACCATG  
 CCTACCCACTCCAAGACAGAAATCCAGCCGCACGGCTTTGCTGTGGGAATCCCACCAGCCGTGTACC  
 ACTCTGAGCCACCGAACGTGTGGTGGTTTTGACCGGAGCCTCAGCACTGATCAGTTCACTCTGGCAC  
 TCAGCCCCCAATGCTCAGCGGAGGACTCCAGACTCCACCTTCTCCGAGACCTTCAAGGAGGGCGTTTCA  
 GAGTTTTCTCCCTCGGAACCTCAGCCTTCGGATGCCGGGCATGAATTCAGAGGACTATGTCTTTGACA  
 ATGTTTCTGGAAACAATTTGAGTATACCTGGAAGCCTCAAGTCACTGCGGCAGAAGCAAGGGGACAG  
 CACTATGACATACCTGAATAAAGGCCAGTTCTATCCTGTACCTTAAAGGAAGGAAGCAGCAATGAAGGG  
 ATTCACCACCCTATCAGCAAAGTTCGAAGTGTGATCATGGTGGTTTTGCTGAAGACAAAAGCAGAGAAG  
 ACCAGCTGAGACTGGAAGTACTGGCACTCCCGTCAGCACACGGCCAAACAGAGGTGCATTGACATTGC  
 TGACTACAAAGAAAGCTTCAACTATCAGCAACATTGAGGAGATAGCTTATAACGCCATTTCTTTCACG  
 TGGGACATCAATGATGAGGCAAAGGTCTTCACTCTGTGAACTGCTTGAGCACAGATTTCTTCTCAGA  
 AGGGTGTGAAGGGCTTCCACTCAACATTCAAATCGACACATACAGCTATAACAACCGCAGCAACAAGCC  
 GGTTACCGGGCTACTGCCAGATAAAGTCTTCTGCGACAAGGGAGCTGAAAGGAAAATTCGGGATGAA  
 GAACGAAAACAGAGCAAGAGAAAAGTGTCTGACGTTAAAGTGCAGCTGCTTCCCTCGCACAAACGGACAG  
 ACATCACAGTGTCAAGCCCTTCTGGACCTCGACACTCAGCCTGTCTTCTTCAATCCGGACGTGCATTT  
 TACCAACCTGCAGCGGGCAGTCATGTTCTTCCCTCCCCTCTGAAGAACTGGAAGGTGAAGGCTCTGTC  
 TTGAAAAGAGGGCCATTCGGAACCGAAGATGACTTTGGAGTTCCTCCTCTGCTAAGCTGACTCGGACAG  
 AAGAACCACAGAGAGTGTCTATGTCCGAAAGGAATCAGAAGAAGTCTTCGACGCCCTGATGCTCAA  
 GACGCCGTCTTTGAAGGGCTGATGGAGGCAATTCAGACAAGTATGATGTCCCCATGACAAGATTGGG  
 AAAATATTTAAGAAGTGCAAAAAGGGATCCTCGTGAACATGGACGACAACATTGTGAAGCACTACTCCA  
 ATGAGGACACCTCCAGCTGCAGATAGAGGAAGCCGGCGCTCGTACAAGCTCACCTGACAGAGATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR223939 representing NM\_145890  
 Red=Cloning site Green=Tags(s)

MVLLDDELCDLNSIPNVTEQPLISAGENRVQVLKNVFPNIVLPHSNQLGIDKRGHLTAPDTTVTVSIATM  
 PTHSIKTEIQPHGFAVGIPPAVYHSEPTERVVVFDRSLSTDQFSSGTQPPNAQRRTDSTFSETFKEGVQ  
 EVFFPSELRLMPGMNSEDYVFDNVSGNFEYTLASKSLRQKQGDSTMTYLNKGQFYPTLKEGSSNEG  
 IHHPISKVRSVIMVFAEDKSREDQLRHWKYHSRQHTAKQRCIDIADYKESFNITISNIEEIAYNASFT  
 WDINDEAKVVISVNCSTDFSSQKGVKGLPLNIQIDTYSYNNRSNKPVHRAYCQIKVFCDKGAERKIRDE  
 ERKQSKRKVSDVKVQLLPSHKRTDITVFKPFLDLDTQPVLFPDVFHTNLQRGSHVLSLPSSELEGEESV  
 LKRGPFGTEDDFVPPPAKLTRTEEPKRVLLYVRKESEEVFDALMLKTPSLKGLMEASDKYDVPDKIG  
 KIFKKCKKGLVNMDDNIVKHYSNEDTFQLQIEEAGGSYKLTLEI

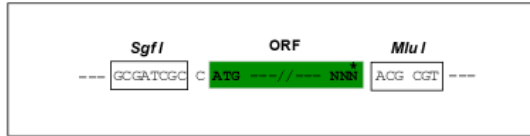
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

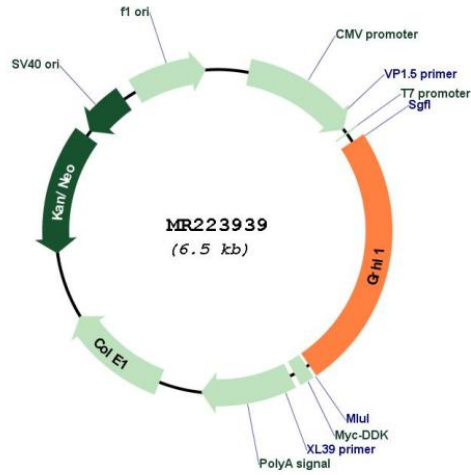
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



<b>ACCN:</b>	NM_145890
<b>ORF Size:</b>	1608 bp
<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_145890.2</a> , <a href="#">NP_665897.2</a>
<b>RefSeq Size:</b>	3100 bp
<b>RefSeq ORF:</b>	1611 bp
<b>Locus ID:</b>	195733
<b>Cytogenetics:</b>	12 A1.3
<b>MW:</b>	61.2 kDa
<b>Gene Summary:</b>	Transcription factor involved in epithelial development. Binds directly to the consensus DNA sequence 5'-AACCGGTT-3' (PubMed:18288204, PubMed:21081122). Important regulator of DSG1 in the context of hair anchorage and epidermal differentiation, participates in the maintenance of the skin barrier (PubMed:18288204, PubMed:24586629). There is no genetic interaction with GRHL3 no genetic interaction with GRHL3, no functional cooperativity due to diverse target gene selectivity during epithelia development (PubMed:21081122). [UniProtKB/Swiss-Prot Function]